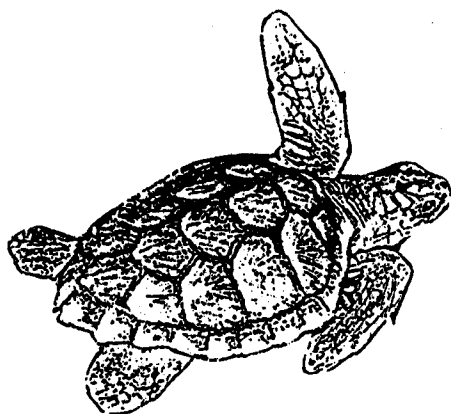


# LOGGERHEADLINE'S

Sea Turtle News from South Carolina

January – May 2001



## Greetings!

Through this, our first issue of *Loggerheadlines*, we send you greetings for the 2001 sea turtle season. We apologize for the lateness of this issue, but things have been very hectic.

## Strandings

This season promised to be an interesting one for strandings and it has been, but in a different way than we thought. The Marine Resources Division closed the trawl fishery for crabs on 19 February and did not open the trawl fishery for whelks at all this year. Two weeks of extremely cold weather in late December and early January sent the ocean temperature into the mid 40-degree range. As a result, almost all of the over-wintering white roe shrimp were killed. The South Carolina Department of Natural Resources decided not to open state waters to shrimping at the usual time in mid May and petitioned the National Marine Fisheries Service to close federal waters to shrimping as well, in order to protect the few remaining roe shrimp and give them a chance to spawn. As a result, there has been no trawling off of our coast this spring.

There were no recorded strandings in January. A code 4 Kemp's ridley was found during a shorebird census in early February on an island that is patrolled only by monthly aerial survey. Although it must be included in this year's total, we believe that this turtle died during the 2000 season.

In March, a juvenile loggerhead was found floating alive in the Stono River near Charleston. A boat prop had hit it on the shell and the lower jaw was fractured. The wounds were partially healed but the carapace was covered in sea lettuce, leeches, and small barnacles and there was black pigment on the skin. This indicated to us that this injured turtle had over-wintered in our coastal rivers, perhaps by brumating in the mud for some of that time. This was amazing, especially given how cold the winter had been. We were able to determine that the Charleston Public Works water treatment plant discharged 1.5 million gallons per day into the Stono River where water temperatures were recorded at 17 degrees C. The outfall was rerouted to a different location in mid December, but from the new site, the discharge could have partially flowed into the Stono River. This is the most probable explanation for how the turtle survived during those months. Unfortunately, it had to be euthanized.

In late April we had three strandings on the same day on two adjoining beaches. One was a loggerhead hit by a boat prop just behind the eyes and was euthanized. Another loggerhead was severely decomposed. The strangest one was a 9-foot long section of a leatherback that included the carapace and the plastron (see photo p. 6). When put back together, it formed a cross section, but with no organs attached. Another prop-cut Kemp's ridley came ashore in the same area three days later. Thus the total for January through April was six in 2001 compared to 8 in 2000.

In May there were 21 strandings recorded this year compared to 22 in May last year. This is

puzzling, given the absence of trawling. When the data are examined, a different picture emerges compared to most spring months when the trawlers are working.

We looked at data from the years 1997-2001 for carcasses that were not too badly decomposed to assess the body condition and barnacle load. Between 33%-48% died while in good condition during 1997-2000. During these same years, 25 necropsies were performed on strandings occurring in May. Twenty could be classified as either having an acute or chronic cause of mortality. Of these, 18 were acute and two were chronic. This May, only three out of 18 animals (17%) appeared to be in good condition when they stranded.

The migration of turtles heading north coincides with the higher number of emaciated animals stranding this May. Once the "herd of turtles" passed, June strandings returned to lower levels, thus far. Some of the carcasses on the beaches near Charleston showed extreme shell damage and were probably killed by the large container ships that use Charleston harbor.

Strandings by species include: 16 loggerheads, one leatherback, six Kemp's ridleys, two green turtle and one unidentified for a total of 27. The distribution pattern of the stranding is consistent with previous years.

### **Rehabilitation**

We had two live loggerheads strand on Kiawah Island, SC. Joseph Pezzullo of the Turtle Patrol found a male loggerhead on May 14<sup>th</sup>. The turtle is 38 inches in length and was emaciated with a heavy barnacle load. Charlotte Hope and DuBose Griffin of SCDNR transported the loggerhead to the South Carolina Aquarium. Curator Steve Vogel has been heading up the loggerhead's rehabilitation. Fluids were administered and the barnacles were removed. "Bill" responded positively to the first round of antibiotics and is now eating well. His diet consists of squid, mackerel and herring in order to provide a high-energy diet, which will rebuild his muscle

tone. Blood has been drawn for chemical analysis to determine further needs for dietary enhancement. Fecal samples proved negative for parasites. As the turtle regains strength he will be moved to a larger tank for exercise.

The second loggerhead stranded on May 31<sup>st</sup> and was also found by Joseph Pezzullo. This turtle was 29.5 inches in length, also with a heavy barnacle load. It is immature, therefore its sex is not known at this time. It was emaciated, and besides a healed amputated rear flipper, the turtle had no obvious wounds. The turtle was picked up by Charlotte Hope and transported to the South Carolina Aquarium holding facility to await transport to the Sea Turtle Hospital at Topsail Island, NC. While at the SC Aquarium, the barnacles were removed and antibiotics were administered. Upon arrival in North Carolina, a team of volunteers began rehabilitation and named the loggerhead "Kiawah." They administered fluids and applied a betadine scrub. "Kiawah" has been reported doing well with an increasing appetite, its diet consisting of squid. "Kiawah" receives betadine scrubs every other day to hold down fungal infections.

You can monitor its progress at:

<http://www.seaturtlehospital.org/kiawah.html>.

### **Necropsy Summary**

From December 2000 through May of 2001, five sea turtles have been necropsied by Tom Murphy and/or Charlotte Hope. There were no leatherbacks, which is the species we are usually dealing with in the spring. Four of the five were Kemp's ridleys. The other was a loggerhead. Of the five, four could be classified as dying of either acute or chronic causes. Three died acutely and one had a chronic condition. Two had cracked carapaces, which appeared to be boat strikes. Another one had two fishhooks in its throat that caused severe enteritis. Four were female and one was a male. All were immature.

### **Leatherback Surveys**

Weekly aerial surveys along the coast at 1.5 and 3.0 nautical miles were flown again this

spring to document the distribution and density of leatherbacks. The leatherback surveys were different from past years in that there were far fewer sighted and there were no areas where the turtles were concentrated. The number sighted on each flight were: 24 April – 14; 1 May – 22; 8 May – 14; 15 May – 6 and 22 May – 7. The final flight was cancelled due to weather. We believe that the lower counts this spring may have been caused by low abundance of cannonball jellyfish. Without the concentrations of food, the leatherbacks must have just kept on moving and did not pause to feed.

### Nesting News

Here are the nesting totals as sent in by each of the nest protection projects.

#### Nesting Activity Update Through May 31, 2001

Beach Name	No.
Myrtle Beach State Park	0
Huntington Beach State Park	0
S.C.U.T.E.	3
South Island	13
Cape Island	75
Lighthouse Island	6
Dewees Island	1
Sullivans Island/Isle of Palms	1
Folly Beach	8
Kiawah Island	17
Seabrook Island	2
Botany Bay Island/Plantation	20
Edingsville Beach	3
Edisto Beach State Park	4
Edisto Beach	11
Harbor Island	8
Hunting Island	5
Fripp Island	7
Pritchards Island	14
St. Phillips Island	2
Hilton Head Island	17
<b>TOTAL</b>	<b>217</b>

Most projects reported a slow start to the season and are reporting slightly fewer nests

that last year. In a "typical" season, the amount of nesting through May represents 9.5% of the total season. It will be interesting to see if this holds true by the end of the year.

### Regional News

North Carolina has two new sea turtle biologists this year. They are: Steve Johnson who just received his Ph. D. from the University of Florida and Susanna Clusella, who just received her M.S. from Purdue University. Susanna reports that they have had 82 strandings through the end of May. There were 55 loggerheads, 15 green turtles, eight Kemp's ridleys, two leatherbacks, one hawksbill and one unidentified. What is interesting about the North Carolina data compared to South Carolina and Georgia is that 36 strandings occurred during January through March. Although the Gulf Stream comes near the North Carolina coast, 28 of the 36 were recorded inshore (in the sounds) where water is very cold that time of year. We look forward to hearing from Steve and Susanna in future issues.

Mark Dodd, sea turtle coordinator for Georgia DNR, reports that some beaches are on pace for a record nesting year while others are very low. He thinks it will be an average year. Nesting also started late. Georgia strandings are interesting. Georgia was averaging about two to five per week and they were not fishery related. During an aerial survey, Mark observed 25 trawlers fishing on the Georgia/Florida line. Strandings jumped to 12 per week and most were on Cumberland and Jekyll Islands. Their law enforcement "busted" a North Carolina boat fishing in Georgia when their waters were closed.

Sandy MacPherson, National Sea Turtle Coordinator for the U.S. Fish and Wildlife Service sends us this news from Florida. For the first time, a criminal charge has been issued for a hatchling sea turtle disorientation event. On October 12, 2000, the U.S. FWS sent a Notice of Violation to the owners of a motel in Ormond Beach, Florida, as a result of an investigation conducted during the 1999 sea turtle nesting season. The motel owners

were charged with violating the Endangered Species Act because the motel's lighting significantly altered loggerhead turtle orientation behavior. The U.S. District Court set the collateral forfeiture amount at \$450. The owners chose to pay the fine. Had they gone to trial and been found guilty, they could have been sentenced to a maximum penalty of up to \$100,000 and one year in prison.

### Notes on Folks

We have two new "turtlers" to introduce this season.

Some of you have already been in contact with **DuBose Griffin**, a graduate student intern from the University of Charleston, who is working in the office. DuBose is picking up fresh strandings, assisting with necropsies and "manning" the sea turtle desk. She transported the live loggerhead from Kiawah to the Topsail hospital in NC. She says it was an "awesome" experience to observe the in-patient procedures and tour the hospital. She is applying her expertise with ArcView GIS to enhance the data of the five nesting loggerheads that were tracked by satellite in 1998.

**Emily Nicar** has the intern position at Yawkey Wildlife Center this summer. A biology major at Warren Wilson College, she is from Oklahoma and has been fascinated with the outdoors and living things since childhood. She has worked during the summer with Recreation, a camp whose participants repair homes for folks who need assistance.

An article in the Post and Courier by Lynne Langley recently featured **Mary Pringle** for her unselfish devotion to wildlife. Mary is not only the project leader of the Turtle Team at Sullivans/Isle of Palms, but also gives a great deal of her time to the S. C. Center for Birds of Prey. "She's a treasure," said Jim Elliott, the center's director, "We couldn't do without her." Ditto, nesting loggerhead turtles on IOP/Sullivans!

**Daemond Burnell** graduated from Baptist Hill High School in May. He is back for a third summer as the Botany Island sea turtle intern. The Ocella Property Owners Association and the Bailey Island Club provide the financial support for the internship.

### Research

This is year two for the SC DNR's In-Water Study for Index of Relative Abundance by the Marine Resources Division. As of 22 June 2001, SC DNR biologists on three boats with the turtle project have captured, measured, drawn blood, tagged and released a total of 79 loggerheads (one swam out of the net during retrieval), three Kemp's ridleys and three green sea turtles (no green turtles were caught last year). These were captured while completing 305 stations between Winyah Bay, South Carolina and St. Augustine, Florida. The 85 total number of turtles this summer, at slightly less than the halfway point in samplings, is similar to the 92 we collected at a similar point during last summer's effort. Last year, 851 tows collected a total of 253 turtles. Two large males and two large female loggerheads (>90cm SCL min.) have been worked up. Sampling will continue through the end of July.

### Notes from the Field

The Hilton Head Island and Pritchards Island groups are working together on a ghost crab depredation project. Kim Washok says they will try to determine the correlation between the number of ghost crab burrows within two square meters of a nest and subsequent hatch success. Every third nest laid will be a trial nest and they will monitor all trial nests on Monday, Wednesday, Friday and Saturdays. The two projects will then compare ghost crab activity between developed and natural beaches.

Speaking of ghost crabs, Doug Henley at Edingsville Beach says, "Kudos" to the ghost crab trap folks. He set two traps (PVC pipe with duct tape of one end) one morning, and by the evening one crab was caught. The next day, another joined it for a total of two in just over 24 hours.

Sad news from the state of Virginia. Billy Shaw, an onboard observer for the National Marine Fisheries Service, reported flipper tag numbers for an adult female loggerhead that was drowned 9.6 miles east of Assateague Island in a monkfish gill net. She turned out to be one of the turtles that we tagged last June on Cape Island, Cape Romain National Wildlife Refuge. It is stating the obvious that coastal gill nets need to be regulated to prevent mortality to sea turtles.

Good news from here. Paula Sisson, biologist with the US FWS in Charleston, reports that the blue "BEACHFRONT LIGHTS OUT - Let's Save the Sea Turtles" signs have been posted on the causeways leading to Isle of Palms, Sullivans Island, Folly Beach, Kiawah and Seabrook islands Edingsville and Edisto Beach and Harbor, Fripp and Hilton Head islands. More will be installed in the northern areas of the coast.

### Announcements & Events

South Carolina was well represented at the 21<sup>st</sup> Annual Symposium on Sea Turtle Biology and Conservation in snowy Philadelphia. There was one poster presentation by Pritchards Island, and three by the Marine Resources Division in-water study. There was a one-day special session on the Biology of the Leatherback Sea Turtle and the auction raised over \$15,000 towards international travel grants. The 22<sup>nd</sup> Annual Sea Turtle Symposium has been preliminarily arranged to take place in Miami, Florida during the first week of April 2002.

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In March, Dr. Colin Limpus, sea turtle biologist with the Queensland Parks and Wildlife Service, presented a seminar on "Turtles, Tourist and Trawlers" to staff and students at the Ft. Johnson campus.

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On Saturday, May 5<sup>th</sup>, the annual South Carolina Sea Turtle Workshop was held at Ft. Johnson with 64 volunteers present. Guest

presenters included Dr. Al Segars, DNR veterinarian, Bruce Hecker and Steve Vogel of the SC Aquarium and Ray Rhodes, DNR economist. There were also reports from project leaders on the 2000 nesting season, a review of stranding data forms and guidelines, spreadsheet and nest protection guidelines.

### Resources

We repeat these excellent references for those of you who may be receiving *Loggerheadlines* for the first time.

- Eckert, K.L., K.A. Bjorndal, F.A. Abreu-Grobois, & M. Donnelly (editors). 1999. *Research and Management Techniques for the Conservation of Sea Turtles*. IUCN/SSC Marine Turtle Specialist Group Publication No. 4. 235 pages.  
--With 42 chapters by authors from around the world, the manual provides information and guidance for field researchers and conservationists on standardized methodology to allow for comparison of data within regions and across ocean basins.  
--Cost \$25; Order from IUCN-Marine Turtle Specialist Group, 1725 DeSales Street, Washington, DC 20036.
- Lutz, P.L. & J.A. Musick (editors). 1997. *The Biology of Sea Turtles*. CRC Press, Boca Raton, Florida. 432 pages.  
--With 15 chapters written by 22 authors, this book synthesizes the results of advances in sea turtle biology. It focuses on how these endangered marine reptiles operate in, adapt to, and are dependent upon particular features of the marine environment. Covers pressing conservation and environmental issues, includes new research techniques and findings, and contains over 1600 references from the literature.  
--Order from CRC Press, INC., 2000 Corporate Blvd., NW, Boca Raton, FL 33431.
- Godley, B.J. and A.C. Broderick (editors). *Marine Turtle Newsletter*

--This newsletter is published quarterly and received by more than 2000 persons in over 100 countries. It contains articles, meeting reports, announcements, news and legal briefs, and recent publications on all aspects of sea turtle biology, research, and conservation.

--The newsletter can be downloaded electronically for free from the website <[www.seaturtle.org/mtn/](http://www.seaturtle.org/mtn/)>. It can be viewed with Adobe Acrobat Reader (which is also available free through the same site).

- CTURTLE Listserv

--This electronic listserv is a discussion forum on sea turtles. It carries information and discussions on a variety of research, conservation and management topics from around the world.

--This listserv is available free-of-charge to all interested persons. An e-mail address is required to subscribe. Any message sent to the listserv is automatically distributed to all persons subscribing to the list. To subscribe send the message "subscribe CTURTLE [your name]" in the body of the message to <[listserv@lists.ufl.edu](mailto:listserv@lists.ufl.edu)>. No subject heading is required.

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